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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/433,499 11/03/99 BROWN

W P99.2275

EXAMINER

MM91/0927

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ART UNIT

PAPER NUMBER

2836

DATE MAILED:

09/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/433,499

Applicant(s)

Brown et al.

Examiner

Roberto Rios

Art Unit

2836



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jul 23, 2001

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-7 and 19-25 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1, 3-7, 19, 21, 22, 24, and 25 is/are rejected.

7) ☒ Claim(s) 2, 20, and 23 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 19, 21, 22 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al (US patent 5,618,209 B1).

As per claim 1, Lin et al (herein after Lin) teach a fuse arrangement for a vehicle (Figure 4) comprising a wiring terminal (7) having a plurality of discrete circuits extending therefrom; a common bus assembly (6); and at least one axial fuse (8) disposed between at least one of the plurality of circuits in the wiring terminal and the common bus terminal for electrically connecting the common bus assembly to at least one of the plurality of discrete circuits through the at least one axial fuse.

As per claim 3, Lin teaches the fuse comprising two male terminals configured to mate with two respective female terminals portions within the wiring terminal and the common bus assembly (Figure 4).

As per claim 5, Lin teaches the common bus assembly further comprising a common bus having a plurality of fuse terminals connections extending therefrom, the common bus and plurality of fuse terminal connections being disposed in a single enclosure (Figure 4).

As per claim 6, Lin teaches the wiring terminal including a plurality of discrete circuits that are, in turn, connected to respective electrical loads (Figure 4).

As per claim 19, Lin teaches a fuse box arrangement for a vehicle comprising a fuse box having a base (5) and a cover (51), a common bus terminal (6) within the fuse box, the common bus terminal connected to a voltage supply; a plurality of wire terminals (7) within the fuse box, each of the plurality of wire terminals connected to a discrete circuit; and a fuse array having at least one axial fuse (8) arranged between the base and the cover of the fuse box, the fuse connecting the bus with the discrete circuit (Figure 4).

As per claim 21, Lin teaches the plurality of wire terminals affixed to the base (Figure 4).

As per claim 22, Lin teaches the common bus terminal affixed to the base (Figure 4).

As per claim 25, Lin teaches the common bus terminal comprising a plurality of contact terminals that are configured to connect to first terminals of each of the plurality of fuses within the fuse array, wherein the common bus terminal is configured to simultaneously connect all of the contact terminal therein with the first terminal of each of the fuses when connecting the common bus terminal to the first terminals (Figure 4).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al.

As per claim 4, Lin does not teach the axial fuses comprising female terminals. However, the Examiner takes official notice that to provide a fuse with male/female will be a design choice based generally on the space available and the fuse box structure.

As per claim 7, Lin does not specifically disclose the fuse box housing material. However, the Examiner takes official notice that it is well known in the art to provide a heat conductive housing for the purpose of reducing the heat contained within the housing resulting from high-voltage devices and avoid damaging the devices.

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al in view of Morrill, Jr. (US patent 5,027,101 B1).

Lin teaches the fuse box comprising an axial fuse (8) but does not specifically disclose the claimed fuse configuration. However, Morrill, Jr (herein after Morrill) teaches an axial fuse comprising a planar, electrically insulating substrate having at least two planar sides; a metallization pattern disposed on at least one side of the planar substrate, said metallization pattern comprising at least one fuse element; a protective coating disposed on at least a respective portion of at least one side of the planar substrate and covering at least a first portion of the metallization pattern; and a second portion of the metallization pattern that is not covered by the protective coating configured as a contact portion (Figures 19-21; col. 15, line 13+).

Art Unit: 2836

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute Lin's fuse with Morrill's fuse for the purpose of maximizing the space available inside the fuse box and reduce the fuse box size.

Allowable Subject Matter

6. Claims 2, 20 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


7. Art of general nature has been cited for applicant's review.

Rangappan, Hibayashi et al, Oh et al, Bernstein, Falchetti, Jungst et al, Evans and Hatagishi teach planar axial fuses. Zemlicka, Klinger et al, Shockley, Taga et al, Yasukuni et al, Arratia, Yamada et al, Lin et al and Haaris et al teach a fuse box arrangement for a vehicle.

Communication with PTO

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (703) 306-5518. In the event that Examiner Rios cannot be reached, his supervisor, Josie Ballato may be contacted at (703) 308-0269. The fax phone number for this group is (703) 305-3432.

Roberto J. Rios
Patent Examiner


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9/26/01